

**ARIZONA DEPARTMENT OF TRANSPORTATION  
OFFICE MEMO**

January 15, 2004

TO: Doug Forstie  
Acting Deputy State Engineer, 102A

FROM: Julio Alvarado  
Assistant State Engineer  
Construction Group, 172A

RE: 2003 Status Report of the Design-Build Process  
In Accordance with A.R.S. 28-7363

I am pleased to report the benefits of implementing the design-build process within the Arizona Department of Transportation for the 2003 calendar year. This report fulfills the requirements of A.R.S. 28-7363.

- **Tempe-Mesa Project: US 60 Superstition Freeway Widening Project.**

This project added additional lanes, including HOV and Auxiliary Lanes to the Superstition Freeway between Interstate 10 and Val Vista Road. It also includes a major interchange modification, adding a bridge to connect the HOV lanes from I-10 to US 60. Six firms submitted proposals and four firms were short-listed and submitted cost proposals. The estimated cost of this project was \$255 million, the largest in ADOT history. The successful proposer, Granite<sup>2</sup>Sundt a Joint Venture, submitted a bid of \$184,292,800.00 (\$70 million under the state estimate).

The principal benefit received from using the design-build method of construction is speed of construction and early completion of projects. In the beginning of 2003, the widening of U.S. 60 (Superstition Freeway) between Interstate 10 and Val Vista Road was completed. ADOT estimated the project would be completed in 1100 calendar days. US 60 was completed in 650 days (450 days ahead of schedule). The daily road user cost during construction was calculated at \$50,000 resulting in a savings of lost time to the motorists of \$22.5 million.

Other benefits include cost savings associated with design and construction, as well as project administration. The final cost of this project was 8% above the bid amount, whereas the conventional design-bid-build project runs 10.5% greater. This represents a savings of over \$4 million.

The project administrative cost was 5.5%. The average project administrative cost for the conventional design-build-bid project is 5.9%. This difference amounts to a savings of over \$0.7 million.

- **Phoenix Project: SR 51 HOV Lanes.**

This project adds an HOV lane to NB and SB State Route 51 from I-10 to Shea Boulevard. Five firms submitted proposals and three firms were short-listed and submitted cost proposals. The estimated cost of this project was \$82.5 million. The successful proposer, Ames Construction, Inc./Edward Kraemer a Joint Venture, submitted a bid of \$75,685,000.

Construction is almost complete on widening the 9.5 miles of State Route 51. Lanes are anticipated to be opened to traffic in March 2004. This is approximately five months quicker than ADOT estimates. Based on a daily road user cost during construction of \$28,000, a savings of lost time to the motorists of over \$4 million can be expected. Final project cost savings and project administration savings similar to the US 60 project can be anticipated.

The benefits of using the design-build process include speed of construction and design, savings in construction costs and contract administration, and tremendous reductions in motorist delay. The Arizona Department of Transportation intends to continue to consider the use of this process when it would benefit the citizens of Arizona.